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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,167	11/26/2001	Clarke V. Greene	100.361US01	9359
34206	7590	05/02/2005	EXAMINER	
FOGG AND ASSOCIATES, LLC			VU, NGOC K	
P.O. BOX 581339			ART UNIT	
MINNEAPOLIS, MN 55458-1339			PAPER NUMBER	
			2611	
DATE MAILED: 05/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/995,167

Applicant(s)

GREENE ET AL.

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/9/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/9/2004 has been entered.

***Response to Arguments***

2. Applicant's arguments with respect to claims 31-40 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 35-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 35 is indefinite because there is no antecedent basis for the limitation "the directional couplers" in lines 12-13. For examining purposes, the examiner considers this limitation as "the directional coupler". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 31-35, 39 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by White et al. (U.S. 20020038461 A1).

Regarding claim 31, White discloses a method of providing redundancy in a cable modem termination system (see [0013], [0017] and figure 1), comprising:

passing communications through an I/O module (e.g., 14 - it is noted that I/O module 14 equates to a directional coupler because it includes terminals/components for sampling signals both directions in transmission lines – see figures 1-3) to a primary CMTS (e.g., 12 - It is noted that each CMTS 12 comprises a receiver for receiving upstream from subscriber through I/O module and a transmitter for transmitting downstream to subscriber through I/O module) during a first operation mode (e.g., normal operation mode) (see [0037] & [0044] and figures 1-2); and

passing the communications through the I/O module to a backup CMTS (e.g., 16 - It is noted that CMTS 16 also comprises a receiver for receiving upstream from subscriber through I/O module 14 and a transmitter for transmitting downstream to subscriber through I/O module 14) during a second operation mode (e.g., failure mode – see [0038] & [0044] and figures 1-2).

Regarding claim 35, White discloses a method of operating a cable modem termination system (see [0013], [0017] and figure 1), comprising:

communicating with one or more primary CMTS (e.g., 12<sub>1</sub>-12<sub>N</sub> - It is noted that each CMTS 12 comprises a receiver for receiving upstream from subscriber and a transmitter for transmitting downstream to subscriber) across a primary signal path (path via lines between CMTS 12 and 14 – see figure 1) during a first operation mode (e.g., normal operation mode),

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wherein each primary CMTS has one upstream communication port for communication with subscriber equipment (e.g., cable modem CM) and one downstream communication port for communication with a headend (see [0037], [0038] and figure 1), wherein an I/O module (e.g., 14 - it is noted that I/O module 14 equates to a directional coupler because it includes terminals/components for sampling signals both directions in transmission lines - see figures 1-3) is connected between upstream communication port and the subscriber equipment (e.g., CM) and between downstream communication port and the headend (see [0037], [0038] and figures 1-2);

detecting a failure of one of the primary CMTS (see [0058], [0059] and figure 7); and entering a second operation mode (e.g., failure mode) wherein communication with the failed primary CMTS is routed through a backup CMTS (e.g., 16 - It is noted that CMTS 16 also comprises a receiver for receiving upstream from subscriber and a transmitter for transmitting downstream to subscriber) through the I/O module associated with the failed primary CMTS (if the control signal indicates that the CMTS 12<sub>1</sub> has failed, then the relay couples to the failure port 38<sub>1</sub> toward the upstream redundancy plan 18 to be received by the backup CMTS 16) (see [0044], [0058], [0059]; figures 1, 2 and 7).

Regarding claims **32, 33, 39 and 40**, White discloses testing the backup CMTS 16 can self test periodically when not in use. For example, the CMTS 16 can transmit data to and receive data from the cable modem without connections to other portions of the system. A replacement CMTS can be tested without disturbing user traffic before the replacement CMTS is restored to active duty (see [0066]).

Regarding claim **34**, White discloses entering the second operation mode (e.g., failure mode) upon detecting a failure of the primary CMTS (see [0038], [0044], [0049], [0059] and figure 7).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (U.S. 20020038461 A1) in view of Parsons (US 3,999,171 A).

Regarding claims 36-38, White discloses the communication through the backup CMTS during the failure mode (see [0038], [0044] and figures 1-2). White does not disclose adjusting amplification based on a detected signal level to create a signal with near unity gain to compensate for losses. However, Parsons discloses that the gain of amplifier is adjusted to maintain the gain of the system at unity based on a control signal (see abstract and col. 2, lines 43-49). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of White by adjusting the gain of amplifier at unity based on a control signal as disclosed by Parsons in order to efficiently compensate for signal losses.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ngoc K. Vu  
Primary Examiner  
Art Unit 2611

April 27, 2005